



Single Hop Beer Experiment

American Pale Ale Recipe #2

The intent of this recipe is for a group of homebrewers to brew a series of beers with the same malt profile, but each highlighting the character of a different hop. The hopping rates are designed to keep the overall IBUs similar while matching the weight of the late hop additions.

Recipe Targets / Assumptions (Calculated for a 5 gallon batch) ¹ :	
OG: 1.056	FG: 1.013 IBU: ~35 Color 6 SRM ABV: 5.7% Boil: 60 minutes
All-Grain Recipe ²	Extract Recipe with Steeping Grains
American 2-Row Malt 11.0 lbs (88%) Munich Malt 0.75 lbs (6%) Victory Malt 0.75 lbs (6%) Whirlfloc 1 tab	Light LME 8.9 lbs Munich LME 0.5 lbs Whirlfloc 1 tab
Single Infusion Mash at 152° F for 60 min. Water/Grain Ratio: 1.00 – 1.25 qt/lbs	<i>Steeping Grain:</i> Victory Malt 0.75 lbs

Hopping Schedule³:

Note: Only the 60 minute addition should be adjusted based on your varietal's alpha acid. The 15 minute, 1 minute, and dry hop should remain as stated below.

60 Minute Addition: Varies⁴ (see chart on next page)
15 Minute Addition: 1.0 oz
1 Minute Addition: 1.0 oz
Dry Hop: 1.0 oz
Dry hop should be added to primary fermenter after fermentation has started to slow (4-7 days). Leave hops in the beer until its racked out for bottling or kegging.

Alpha Acid (%)	60 Min Addition (oz)
4	1.90
5	1.45
6	1.10
7	0.90
8	0.75
9	0.60
10	0.50
11	0.40
12	0.34
13	0.28
14	0.23
15	0.20

Yeast:

WLP001, Wyeast 1056, or Safale US-05 (use a starter if needed)

Fermentation:

Primary Fermentation at 67° F for 10-18 days

Carbonate: 2 – 2.5 volumes

¹ - Recipe designed to leave 6 gallons of wort in kettle at end of boil. Adjust pre-boil volume based on your system.

² - All-Grain recipe calculated with a 75% brewhouse efficiency. Adjust as needed for your system.

³ - All hops are assumed to be pellet hops. Adjust accordingly if you use whole cone hops.

⁴ - IBUs calculated using the Rager formula (assumes boil volume is 7 gallons).



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Use the chart below and the hop's alpha acid to determine the weight of hops needed at the 60 minute addition in order for the beer to reach ~35 overall IBUs.

